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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------------------|-----------------------------|
| 10/826,274 | 04/19/2004 | Dong-Hoon Lee | 0630-1976P | 9915 |
| 2292 7590 08/22/2007 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | EXAMINER MCPHERSON, JOHN A | |
| | | | ART UNIT 1756 | PAPER NUMBER |
| | | | NOTIFICATION DATE 08/22/2007 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/826,274

Applicant(s)

LEE ET AL.

Examiner

John A. McPherson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 34-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 34-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. This Office Action is responsive to the Amendment filed 5/9/07.
2. The Amendment filed 5/9/07 successfully overcomes the rejections set forth in paragraphs 5-8 of the Office Action mailed 2/9/07. Accordingly, these rejections are withdrawn.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 34 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 34 is indefinite because the relative locations of the opening, the black matrix, the one of the sub color filters, and the another one of the sub color filter layers are unclear.

Claim 34 presents the limitation "forming a plurality of sub color filter layers such that the opening is between one of the sub color filter layers and a black matrix, *and the opening is separated by the black matrix from another one of the sub color filters layers immediately adjacent to the one of the sub color filter layers*". It is unclear how the opening can be both (1) "between one of the sub color filter layers and a black matrix" and (2) "separated by the black matrix from another one of the sub color filter layers" if

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the another one of the sub color filter layers is also "immediately adjacent to the one of the sub color filter layers". Specifically, it appears that the one sub color filter layer and the another sub color filter layer would necessarily have to be on opposite sides of the black matrix if both (1) and (2) are true. If the two sub color filter layers are separated by the black matrix and the opening, then they can't be "immediately adjacent".

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 6-15 and 34-36 are rejected under 35 U.S.C. 102(e) as being anticipated by US 7,123,333 to Lee et al. (Lee). Lee discloses a fabrication method for a color filter panel comprising the steps of forming a black matrix having a first opening on a substrate, forming a color filter layer on the substrate, forming an organic layer on the color filter layer and in the first opening, and forming a spacer by back-exposing the organic layer through the first opening. See the abstract; column 6, line 25 to column 8, line 39; and Figures 6A-F.

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Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6-15 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-089233 (JP '233) in view of Applicant's discussion of the prior art in the specification.

JP '233 discloses a method of manufacturing a liquid crystal display element comprising the steps of providing opening parts on a part of colored layers or a black matrix on a color filter substrate, forming a clear electrode of ITO, coating a photosensitive polymer material, and exposing from the substrate side to form spacers on the opening parts. See the abstracts, paragraphs [0016]-[0018] and [0025]-[0031] of the computer-generated translation, and Figures 1 and 2(a)-(c). However, JP '233 does not disclose forming the spacers spaced apart from the color filter layer.

Applicant discloses that it is known in the prior art to form a transparent overcoat layer on the color filter layers prior to forming an ITO layer as a common electrode. See paragraphs [020] and [021] of the specification. It would have been obvious to one skilled in the requisite art to form a transparent overcoat layer on the color filter layers prior to forming the ITO layer, as set forth in Applicant's discussion of the prior art, in the process of JP '233 because it is taught that forming a transparent overcoat layer on the color filter layers prior to forming an ITO layer compensates for steps in the color filter.

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6. Claims 1-15 and 34-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2000-089233 (JP '233) in view of JP 7-181316 [cited in the Information Disclosure Statement filed 4/19/04] (JP '316).

JP '233 discloses a method of manufacturing a liquid crystal display element comprising the steps of providing opening parts on a part of colored layers or a black matrix on a color filter substrate, forming a clear electrode of ITO, coating a photosensitive polymer material, and exposing from the substrate side to form spacers on the opening parts. See the abstracts, paragraphs [0016]-[0018] and [0025]-[0031] of the computer-generated translation, and Figures 1 and 2(a)-(c). However, JP '233 does not disclose forming the spacers spaced apart from the color filter layer, or forming the black matrix as a stack of the color filter layers.

JP '316 discloses a manufacturing method for a color filter comprising the steps of forming red, green and blue transparent coloring layers on a transparent base board so that part of them overlap each other in light shielding (i.e. black matrix) parts; forming a transparent resin layer; and forming an ITO thin film as a transparent electrode. See the abstract; Figures 1(a)-(f); and paragraphs [0004]-[0008] and [0014] of the computer-generated translation included with this office action. It would have been obvious to one skilled in the requisite art to form a light shielding part by overlapping the red, blue and green coloring layers, and to form a transparent resin layer over the coloring layers, because it is taught that forming a light shielding part by overlapping coloring layers avoids the cost and complications of forming a separate protection from light part, and it is taught that providing a light transparent resin layer on the coloring layers greatly

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improves the smoothness of the filter layer surface so as to prevent breakage to the electrode.

Response to Arguments

7. Applicant's arguments with respect to claims 1-15 and 34-36 have been considered but are moot in view of the new ground(s) of rejection.

With respect to the 35 USC 102 rejection over Lee, Applicant argues that this reference does not qualify as prior art because of the earlier foreign priority date of the instant application. However, Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

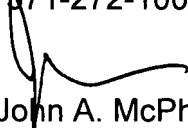
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. McPherson whose telephone number is (571) 272-1386. The examiner can normally be reached on Monday through Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on (571) 272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



John A. McPherson
Primary Examiner
Art Unit 1756

JAM
7/26/07